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10/596,379	06/12/2006	Xiaowei Shi	CN 030060	5920

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BRIARCLIFF MANOR, NY 10510

EXAMINER
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BROMELL, ALEXANDRIA Y

ART UNIT	PAPER NUMBER
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2169

MAIL DATE	DELIVERY MODE
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01/07/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

### Application No.

10/596,379

### Applicant(s)

SHI, XIAOWEI

### Examiner

Alexandria Y. Bromell

### Art Unit

2169

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This Office Action is in response to Applicant's application 1056379, filed 6/12/06. Claims 1-15, which are currently pending, are fully considered below.

#### ***Priority***

This application is a 371 of PCT/IB04/52749, filed 12/10/04, which claims priority to foreign document CHINA 2003010123354.7, filed 12/15/03.

#### ***Claim Rejections - 35 USC § 101***

Claims 1-15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-11 are rejected as falling under the judicial exception of an abstract idea which lacks a useful, concrete, and tangible result. A claimed series of steps or acts that do not result in a useful, concrete, and tangible result are not statutory within the meaning of 35 USC 101. In the instant case, the claims recite, "method for recommending information." However, no useful, concrete, and tangible result is claimed. For example, "writing said data," "updating said data," "sending said data" being claimed at the end of the claim may comprise a useful, concrete, and tangible result. Absent such a result, however, the claims are not statutory.

Claims 12-15 are rejected because the claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.").

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mancisidor et al. (U.S. Patent Publication 20020116243) and further in view of Schaffer et al. (20020108113).

With respect to claim 1, Mancisidor teaches receiving the information which includes the specific information characteristics (i.e. customer characteristics and traits are received by system, [0037, 0038]); and recommending the information which conforms to the predetermined conditions to the user according to the matching result (i.e. recommendation information is provided to the customer based on customer characteristics, [0063]). Mancisidor teaches that the system employs fuzzy logic, variables, and sets to establish and manage user information, [0036-0040]. Mancisidor does not explicitly disclose how the user information is matched using fuzzy logic to make recommendations. However, Schaffer teaches matching said information with a user file which includes the user's selecting characteristic by inference of the fuzzy logic (i.e. recommendations are created by using fuzzy logic along with weighting values and other factors, [0027]). Mancisidor and Schaffer are analogous art because they are from the same field of endeavor of providing recommendations for a user. At the time of

the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Mancisidor and Schaffer before him or her, to modify the system of Mancisidor with the teachings of Schaffer in order to improve recommendations for a user (Schaffer, [0009]). The motivation for doing so would have been to improve recommendations (Schaffer, [0009]), with respect to time (Schaffer, [0010]), using fuzzy now logic (Schaffer, [0010]). Therefore, it would have been obvious to combine Schaffer with Mancisidor to obtain the invention as specified in the instant claim(s).

With respect to claim 2, Mancisidor teaches updating said user file according to the user's feedback for the recommended information (i.e. customer profile is updated to reflect if customer was satisfied or dissatisfied with recommendation, [0039]).

With respect to claim 3, Mancisidor teaches a system that employs fuzzy logic, variables, and sets to make recommendations [0036-0040]. Mancisidor does not explicitly disclose a user's interest and a weighted value. However, Schaffer teaches judging the actual user's interest-degree according to the relative ratio of the time in which the user watches the recommended information to the time in which said information is predetermined to broadcast actually, thereby to update the user's parameters (i.e. users interest can be determined by calculating a weighted value  $w$ , based on a function of the time the user is watching a program, [0027]). Therefore, the limitations of claim 3 are rejected in the analysis of claim 2 above, and the claim is rejected on that basis.

With respect to claim 4, Mancisidor teaches a system that employs fuzzy logic, variables, and sets to make recommendations [0036-0040]. Mancisidor does not

explicitly disclose what the selecting characteristic is made up of. However, Schaffer teaches selecting characteristic includes a ternary array which includes the content characteristic, the preference and the weight (i.e. customer characteristics are based on content characteristics (personality profile), preference (nominal recommendation), and weight, [0027, figure 6]). Therefore, the limitations of claim 4 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

With respect to claim 5, Mancisidor teaches a system that employs fuzzy logic, variables, and sets to make recommendations [0036-0040]. Mancisidor does not explicitly disclose how the user preference is made up. However, Schaffer teaches said preference represents the degrees of the user's like and dislike (i.e. preference is indicated by 1 if it is satisfied by user request, 0 otherwise, [0027, figure 6]). Therefore, the limitations of claim 5 are rejected in the analysis of claim 4 above, and the claim is rejected on that basis.

With respect to claim 6, Mancisidor teaches a system that employs fuzzy logic, variables, and sets to make recommendations [0036-0040]. Mancisidor does not explicitly disclose how the user preference is made up. However, Schaffer teaches the preference and the weight of said selecting characteristic is expressed with the fuzzy set (i.e. fuzzy function is made like preferences and weights, [0026-0034, figure 6]). Therefore, the limitations of claim 6 are rejected in the analysis of claim 4 above, and the claim is rejected on that basis.

With respect to claim 7, Mancisidor teaches a system that employs fuzzy logic, variables, and sets to make recommendations [0036-0040]. Mancisidor does not

explicitly disclose an equation or matrix that shows how the recommendation is made based on user data. However, Schaffer teaches  $UP = ((t_1, l_{d1}, w_1), (t_2, l_{d2}, w_2), \dots, (t_i, l_{di}, w_i))$  wherein  $(t_i, l_{di}, w_i)$  is a said selecting characteristic;  $t_i$  is a content characteristic,  $i$  is the serial number of the content characteristic  $t_i$ ,  $l_{di}$  is the preference for the selecting characteristic,  $w_i$  is the weight of the selecting characteristic (i.e. the selecting characteristic, or final recommendation is made up of weight, nominal recommendation, and personal profile, [figure 6(2)]). Therefore, the limitations of claim 7 are rejected in the analysis of claim 4 above, and the claim is rejected on that basis.

With respect to claim 8, Mancisidor teaches said user file is established in a fuzzy manner (i.e. system employs fuzzy logic, variables, and sets to establish and manage user information, [0036-0040]).

With respect to claim 9, Mancisidor teaches a system that employs fuzzy logic, variables, and sets to make recommendations [0036-0040]. Mancisidor does not explicitly disclose how the user information is matched using fuzzy logic to make recommendations. However, Schaffer teaches matching the specific information characteristic of said information with the relative selecting characteristic in said user file to obtain the user's interest degree for said specific information characteristic by inference of the fuzzy logic (i.e. recommendations are created by musing fuzzy logic along with weighting values and other factors, [0027]), and obtaining the user's comprehensive interest-degree for said information according to the obtained interest-degree for said specific information characteristic (i.e. users comprehensive interest degree, or final recommendation is partially based on the interest degree for specific



information characteristic, w, [figure 6]). Therefore, the limitations of claim 9 are rejected in the analysis of claim 1 above, and the claim is rejected on that basis.

With respect to claim 10, Mancisidor teaches fuzzing said selecting characteristic and said interest-degree for the specific information characteristic (i.e. characteristic is measurable in a fuzzy variable, [0038]), and making a fuzzy process for the fuzzed selecting characteristic to obtain the fuzzed interest-degree for the specific information characteristic (i.e. system employs fuzzy logic, variables, and sets to make recommendations, [0036-0040]). Mancisidor does not explicitly disclose how the output recommendations are calculated. However, Schaffer teaches establishing a transforming mode for the variable with multi-input and single-output, said input variable being the user's selecting characteristic, said output variable being the interest-degree for the specific information characteristic (i.e. several characteristics are input to calculate an output variable final recommendation, [0027-0034, figure 6]), and de-fuzzing the processing result to obtain the definite value of the interest-degree for the specific information characteristic (i.e. definite values are used to calculate final recommendations, [figure 6]). Therefore, the limitations of claim 10 are rejected in the analysis of claim 9 above, and the claim is rejected on that basis.

With respect to claim 11, Mancisidor teaches a system that employs fuzzy logic, variables, and sets to make recommendations [0036-0040], and mapping said interest-degree for the specific information characteristic to the comprehensive interest-degree for the information obtained with the fuzzy set (i.e. characteristic is measurable in a fuzzy variable, [0038]). Mancisidor does not explicitly disclose how the output

recommendations are calculated. However, Schaffer teaches establishing a transforming mode for the variable with multi-input and single-output, said input variable being the interest-degree for the specific information characteristic, said output variable being the comprehensive interest-degree for the information (i.e. several characteristics are input to calculate an output variable final recommendation, [0027-0034, figure 6]). Therefore, the limitations of claim 11 are rejected in the analysis of claim 10 above, and the claim is rejected on that basis.

With respect to claim 12, Mancisidor teaches information receiving means for receiving the information which includes the specific information characteristic (i.e. customer characteristics and traits are received by system, [0037, 0038]), and sieving means for recommending the information which conforms to the predetermined conditions to the user according to the matching result (i.e. recommendation information is provided to the customer based on customer characteristics, [0063]). Mancisidor does not explicitly disclose how the user information is matched using fuzzy logic to make recommendations. However, Schaffer teaches fuzzy matching means for matching the received information with a user file which includes the user's selecting characteristic by inference of the fuzzy logic (i.e. recommendations are created by musing fuzzy logic along with weighting values and other factors, [0027]). Mancisidor and Schaffer are analogous art because they are from the same field of endeavor of providing recommendations for a user. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Mancisidor and Schaffer before him or her, to modify the system of Mancisidor with the teachings of Schaffer in order to

improve recommendations for a user (Schaffer, [0009]). The motivation for doing so would have been to improve recommendations (Schaffer, [0009]), with respect to time (Schaffer, [0010]), using fuzzy now logic (Schaffer, [0010]). Therefore, it would have been obvious to combine Schaffer with Mancisidor to obtain the invention as specified in the instant claim(s).

With respect to claim 13, Mancisidor teaches user communicating means for user's communicating the information with said system (i.e. user may communicate with system through telephone or internet [0063]).

With respect to claim 14, Mancisidor teaches user file revising means for updating the user's file according to the user's feedback for the recommended information (i.e. user profile can be updated to reflect user feedback, [0095]).

With respect to claim 15, Mancisidor teaches fuzzy user file managing means for storing the fuzzed user files (i.e. user files are stored in a customer profile database, [0095, 0097]).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gutta et al. teaches filtering of recommendations employing personal characteristics of users (U.S. Patent Publication 20020186867).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexandria Y. Bromell whose telephone number is 571-270-3034. The examiner can normally be reached on M-R 6:30-5.

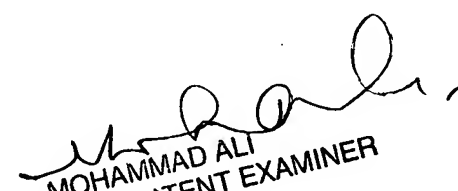
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ali can be reached on 571-272-4105. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alexandria Y Bromell  
Examiner  
Art Unit 2169

AYB   
December 28, 2007



  
MOHAMMAD ALI  
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